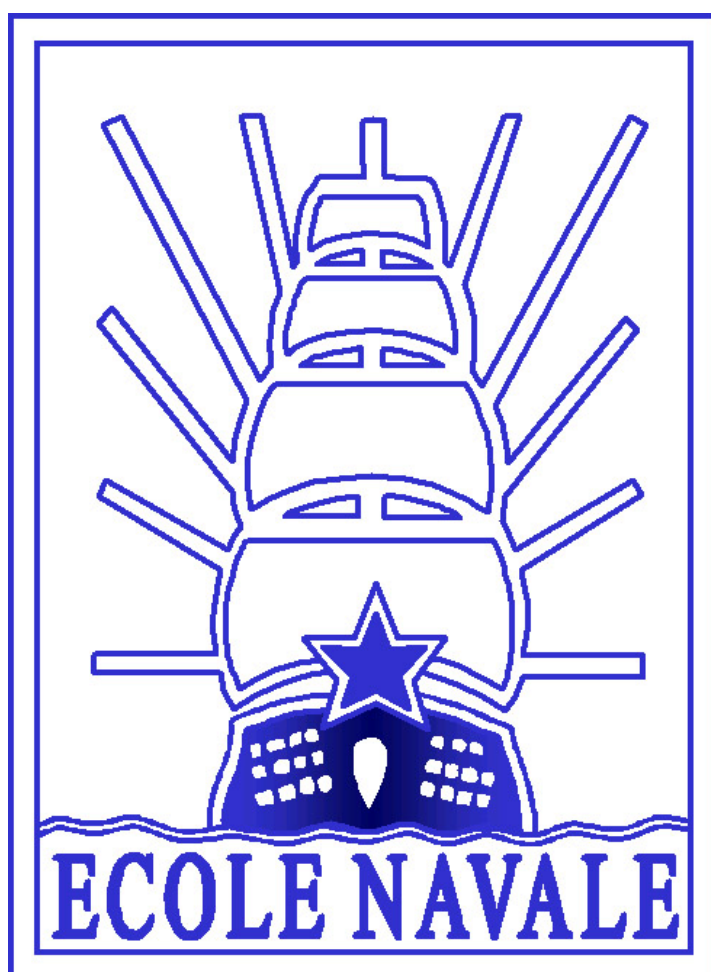


ECOLE NAVALE

EDUCATION DEPARTMENT

SIXTH SEMESTER

HIGHER MARITIME AND MILITARY TRAINING



HISTORICAL REVIEW OF THE DOCUMENT

Edition	Date	References	Evolutions	Performed by
1	01/10/05		First edition	

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INTRODUCTION

The sixth semester goes on with the training of cadet officers as executives of the nation and seamen.

The training objectives for this semester are as follows:

- To acquire engineering theoretical knowledge for the qualification as engineer of the watch;
- To have decision-making and command skills;
- To have acquired the *canot major* or cruiser skipper qualification;
- To have obtained the English CML2.

Adaptability: end of engineering training with an engineering course unit at the CIN in St Mandrier (South of France);

STCW standard: a higher maritime training, especially with a three-week corvette, requiring a “direction level” for cadets that are fit for the functions of officer of the watch;

International relations: end of the module which began at semester 5;

Practical training to leadership: a last exercise makes the synthesis of the learning that was acquired in the field of maritime training and leadership training;

Human resources: this learning is the continuation of the one that is part of the fifth semester as far as management is concerned.

Furthermore, during this semester, cadets will take part in the TSGED¹.

¹ TSGED = Sport tournament gathering French military schools

TRAINING PROGRAMME OF THE SEMESTER

	Subject	HO	HNO	Coeff.	ECTS
FMM	Navigation	51		8	/
	Manoeuvre	34		7	
	Meteorology	4		1	
	Engineering training	70		10	
	Engineering course unit	140			
	Pre-corvette	35	3		
	Corvette	105	72	14	
FHM	Communication techniques: DMMC training period report or study thesis	7		5	15
	Sea law	12		2	
	International relations/geopolitics	26		5	
	Management / Human resources	25		4	
	2 nd modern language/English	18		1	
	CML	5			
	Maritime leadership exercise (Espadon)	28	40	9	
	HEC / Leadership seminar	7			
	Infantry marches		5		
	Protection/defence (including shooting)		12	2	
	Sport by squad	22		5	
	Sport by option	18	24	1	
	Admiral cross-country running	4			
	TSGED	14	14		
	Geography			2*	
Divers	Study	5			/
	EV1 ² prize-giving ceremony	1			
	Training for 14 th July ceremony	27	10		
	Public holidays	42			
	Suppleness	35			
	TOTAL	735	180	76	15

* test shared with sea law

NB : Coloured modules are those that are also taken into account for the professional Masters.

² EV1 = Sub-lieutenant

Title I: SEAMAN TRAINING

1. OBJECTIVES

The objectives for this last part of the maritime training are:

- To have acquired the *canot major* or cruiser skipper qualification;
- To be able to understand and use standard English vocabulary for navigation;
- To be able to use electronic systems that are used for navigation and position reckoning (SENIN software);
- To know the global system dedicated to distress and sea rescue (*SMDSM*);
- To understand complex systems that are specific to maritime environment;
- To know the sea propelling systems.

2. DETAILED TRAINING

This training is detailed in the appendix.

A 3-week corvette is planned during the semester. It is preceded by a one-week pre-corvette.

3. ASSESSMENT

Each part of the learning which is provided in this module is assessed by means of written tests that are described in the appendices.

Moreover, an oral test of 20 minutes related to the whole navigation learning brings this training to an end.

NAVIGATION

Training title		UV: Cadets Seaman training
FCF ³ Landmark	Peda. obj. N°	Pedagogical objectives (to be able, at the end of the training, to ...)

B. NAVIGATION STCW MODULE

B	1.4	To determine the ship position by using electronic support systems for navigation
1	5	To know the <i>SMDSM</i> ⁴ .

ECDIS - SENIN				
Code: NAV	Title	UI	Group	Room
SENIN ECDIS 01 C	ECDIS (Electronic Chart Display and Information System) presentation	2	Squad.	P. NAV
SENIN ECDIS 02 P	Tutorial on SENIN software (during the pre-corvette)	2 UI*5	12 Max	P rad SENIN
TOTAL		12*		

* including 10 UI in pre-corvette

GMDSS					
CODE: NAV	Title	UI	Teacher	Group	Room
SMDSM 01 C	GMDSS presentation	2	Inst NAV	Squad	P NAV
SMDSM 02 C	GMDSS functions	1	Inst NAV	Squad	
SMDSM 04 C	GMDSS subsets	1	Inst NAV	Squad	
SMDSM 03 C	Functioning of maritime radio communications	2	Inst NAV	Squad	
SMDSM 05 C	Information on maritime safety	1	Inst NAV	Squad	
SMDSM 06 C	Distress alerts	3	Inst NAV	Squad	
SMDSM 07 C	Cancellations and distress relaying	2	Inst NAV	Squad	
SMDSM 08 C	Emergency and safety communications	2	Inst NAV	Squad	
SMDSM 09 P	TP: Equipments presentation. Distress, emergency and safety in zone A1	2	Inst NAV	Pre-Corvette	P NAV Le Four
SMDSM 10 P	TP: Distress, emergency and safety in zone A2	2	Inst NAV	Pre-Corvette	P NAV Le Four
SMDSM 11 P	TP: information on maritime safety (RSM)	2	Inst NAV	Pre-Corvette	P NAV Le Four
SMDSM 12 P	TP: INMARSAT⁵ C HF distress	2	Inst NAV	Pre-Corvette	P NAV Le Four
SMDSM 13 P	TP: distress relaying – Cancellation - Checking	2	Inst NAV	Pre-Corvette	P NAV Le Four
SMDSM 14 D	<i>SMDSM</i> assessment	1	LV NAV	Squad	P NAV
TOTAL		25*			

* including 10 teaching units dedicated to practical in pre-corvette

³ FCF (Fiche de caractéristiques de formation) = Card gathering training features

⁴ French equivalent for GMDSS: Global Maritime Distress and Safety System

⁵ INMARSAT = International MARitime SATellite organisation

CELESTIAL NAVIGATION				
CODE: ASTRO	Title	UI	Teacher	Group
1C	Stars movements, seasons	1	LV NAV	Squad
2C	Celestial position general principle. 3 coordinates systems	1	LV NAV	Squad
3C	Navigational triangle – Celestial position mathematical principle	1	LV NAV	Squad
4P	3 coordinates systems	2	Inst NAV	Squad
5P	Stars coordinates setting up (sun, stars)	2	Inst NAV	Squad
6C	What is important to understand and remember? Diurnal movement; visible movement of the sun.	2	LV NAV	Squad
7D	Astronomy test - coordinates	2	Inst NAV	Class
8P	D5 marking	1	Inst NAV	Class
9C	Sextant, height correcting	1	LV NAV	Squad
10C	Sextant: adjustment, collimation, real height calculation	2	Inst NAV	Squad
11C	Position line	2	LV NAV	Squad
12C	Star point (sun - stars)	1	LV NAV	Squad
13P	Position line setting up (calculator) – Star point (sun - stars)	2	Inst NAV	Squad
14P	Position line setting up (calculator) – Star point (sun - stars)	2	Inst NAV	Squad
15P	Starfinder (stars)	1	Inst NAV	Squad
16C	What is important to understand and remember? Meridian line – Polar star	2	LV NAV	Squad
17D	Astronomy test - Sextant-star point	2	Inst NAV	Class
18C	Test marking	1	LV NAV	Class
TOTAL		28		

SCOTT					
Code: SCOTT	Title	UI	Group	Room	Obs.
4P	Scott	6	Squad	P. Nav	By course of one teaching unit
TOTAL		6			

METEOROLOGY

1. OBJECTIVES

This last module dedicated to meteorology develops theoretical notions that are necessary for tropical and polar meteorology.

2. DETAILED TRAINING

Code: MTO	Title	UI	Group	Teacher
11C	Tropical meteorology	3	Squad	MTO Engineer
12C	Polar meteorology	1	Squad	MTO Engineer
TOTAL		4		

MANOEUVRE

1. OBJECTIVES

Training title		UV: Cadets Seaman training (Semester 6)	
Short title		FMM S6	
Version		01	Edition date 3 June 2004
FCF Landmark	Peda. obj. N°	Pedagogical objectives (to be able, at the end of the training, to ...)	

C. MANOEUVRE STCW MODULE

C	1	To answer a distress signal at sea Searches and rescue To know the content of the handbook dedicated to search and rescue for merchant ships (<i>MERSAR</i>) issuing from the International Maritime Organization
C	2	<i>Ship manoeuvring</i> Knowledge of following issues: <ul style="list-style-type: none"> 1 manoeuvres and methods for recovering a man overboard 2 port manoeuvres 3 methods for picking up a mooring buoy and for towing 4 manoeuvres when the weather is bad, navigation in ice floes

D. MODULE REGLES DE BARRE STCW

D	1	<i>To perform bridge watchkeeping in complete safety</i>
D	1.1	Thorough knowledge of the content, applications and object of the International ruling statement for preventing collisions at sea
D	1.2	Knowledge of rules related to piloting
D	1.3	Studies on practical cases and sea accidents

2. ASSESSMENT

Cadets must get a minimal mark of 16 out of 20 for the COLREG test. Additional tests will be organised during non-working hours until they all obtain the necessary level to get an equivalent of sea charts.

Manoeuvres on the stretch of water are based on a continuous assessment thanks to an individual note-book which can be referred to at any time.

3. INITIAL PROGRAMME

THEORETICAL MANOEUVRE						
Code: MANTHEO	Title	UI	Group	Teacher	Room	Obs.
19C	Reminders on <i>COLREG</i> (markers, route rules, lights, day marks, signals, application of the <i>COLREG</i> within the French Navy, DMP, DMM, DMU, DLM)	1	Class	Navis instructor	Lecture hall	
20D	Test on <i>COLREG</i>	1				Minimum required: 16/20
19C	Picking up a mooring buoy	1	Class	LV MAN or assistant	Lecture hall	
20C	Revision : port manoeuvres according to wind and current	1		LV MAN		

21C	Port manoeuvre with a towboat	2				
22C	Towing between battleships	1		LV MAN or assistant		
23C	Docking – beaching	1				
24C	Manoeuvre with bad weather and navigation in ice floes	2		LV MAN		
25C	Pilot instruction	1				
26D	MANTHEO general testing	2	Class	LV MAN or assistant	B016	
27P	Sea accidents – Case studies	3	Squad	LV MAN or assistant	Squad	
TOTAL		16				

PRACTICAL MANOEUVRE						
Code: MANPRAT	Title	UI	Group	Teacher	Room	Obs.
8P	Stretch of water – VSP and picking up a mooring buoy on a training ship	7	½ squad	Inst. MAN	PDE	After MANTHEO 19C
9P	Stretch of water – towing on a manoeuvre instruction boat	7				After MANTHEO 22C
10P	Stretch of water – manoeuvre instruction boat/VSP/Sailing boat	11				Pre-CE2
11P	TP: Rescue boats	1	Class	Inst. NAV		
12P	TP: IAMSAR (manual dedicated to International Aeronautical and Maritime Search And Rescue)	2				
TOTAL		29*				

* including 11 in pre-corvette

PRE-CORVETTE ET CORVETTE

1. PRE-CORVETTE

During this period dedicated to seaman training, cadets are shared out by groups of 3 or 4; the 3 visual simulator bridges are armed by those who navigate on electronic charts. Other groups alternate between navigation revision courses, sessions on the stretch of water, studies and sport, in accordance with the programme issued by the Seaman training Department. Cadets also have to take a final oral exam for navigation which deals with all the courses.

The objectives of this pre-corvette are:

- to know the functioning of the SENIN software;
- to be able to prepare a crossing on an electronic chart (routes preparation, alarms adjustment, configuration of engineering parameters) ;
- to be able to follow a navigation, to estimate and correct navigation apparatuses' errors;
- to check electronic navigation charts and update them;
- to position oneself on a electronic chart thanks to optic and radar samples.

2. CORVETTE

Cadets carry out a three-week corvette during which they practice watch-keeping 24 hours long in F1 (with an officer of the watch) or alone.

Training objectives of CE2 corvette are as follows:

- navigation / manoeuvre: acquisition of coastal and ocean navigation – familiarization with SENIN (same objectives as those for pre-corvette; they are detailed above);
- engineering: power transmission (study of mechanical systems ranging from oil pumps to screws blades).

An order of circumstances provides the level reached by the cadets and details the objectives they have to hit for the corvette.

ENGINEERING TRAINING

1. ENGINEERING COURSE UNIT PRÉPARATION

Training title		UV: Cadets Seaman training
FCF Landmark	Peda. obj. N°	Pedagogical objectives (to be able, at the end of the training, to ...)

D. PREPARATION OF THE ENGINEERING COURSE UNIT

	To understand complex systems that are specific to maritime environment
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ENGINEER TECHNIQUES				
Code: TECHING	Title	UI	Group	Room
1-7	Guidance system	5*2	Squad	Squad room
8-14	Transmission of mechanical power	3*2	Squad	Squad room
15-21	Permanent or stoppable connecting	3*2	Squad	Squad room
22-28	Water-tightness	3*2	Squad	Squad room
29-35	Pumps	2*2 + 3*1	Squad	Squad room
TOTAL		35		

This module is assessed during an individual oral presentation.

CASE STUDY				
CODE: CASPRAT	TITLE	UI NB	GROUP	ROOM
1 to 9	Exploitation of the user technical documentation	9*2	Squad	B 016
TOTAL		18		

This module is assessed during an individual oral presentation.

ELECTRIC ENGINEERING				
Code: ELEC	Title	UI	Title	Room
1C	Direct current machines	6	Squad	Squad
2C	Three-phase transformers	6	Squad	Squad
3D	Final assessment	2	Class	B016
TOTAL		14		

STCW-95 ADDITIONAL ELEMENTS				
Code: COMP	Title	UI	Group	Room
1C	Steering and security devices	1	Squad	Squad room
2C	Environment (MARPOL Convention)	1	Squad	Squad room
3C	Power transmission (screws and propellers)	1	Squad	Squad room
TOTAL		3		

2. ENGINEERING COURSE UNIT AT THE CIN IN SAINT-MANDRIER

All the cadets of the class will attend this training at the CIN located in St Mandrier.

Training objectives are:

- **Ship watch officer (OQN) :**
 - i. To perform watch at the propulsion steering post in complete safety;
 - ii. To make main and auxiliary machines function as well as related control systems;
 - iii. To make alternators, generators and related control systems function;
 - iv. To monitor and evaluate main machines' results and capacities. To maintain the security of the equipment;
 - v. To ensure that instructions related to the prevention of sea environment pollution is respected;
 - vi. To maintain the navigability of the ship.
- **Sector head:**
 - i. To maintain, repair and reassemble the equipments;
 - ii. To plan and organise upkeep operations.

Code	Title	UI	coeff.	Group	Room
LOGISTIC MAINTENANCE - HPA					
LOG1	Role of the <i>COMANAV</i> (ship group commander)	1		Class	CIN St Mandrier
LOG2	Support protagonists (central and local level)	2		Class	CIN St Mandrier
LOG3	<i>AMF</i> (Military workshop of the fleet) <i>DCN</i> (Naval constructions management) <i>SSF</i> (Department in charge of the support to the fleet)	1		Class	CIN St Mandrier
LOG4	Industrial hygiene and safety: rules on board	3		Class	CIN St Mandrier
LOG5	Requests for technical intervention	1		Class	CIN St Mandrier
LOG6	<i>SIBELOG</i> (logistic needs signalling)	1		Class	CIN St Mandrier
LOG7	NATO proceedings	1		Class	CIN St Mandrier
LOG8	<i>PEI</i> (Intermediary upkeep period)	1		Class	CIN St Mandrier
LOG9	Degasing	1		Class	CIN St Mandrier

LOG10	Docking	1		Class	CIN St Mandrier
LOG11	<i>IPER</i> (equipment downtime because of upkeep and repairs) and tests at the end of the <i>IPER</i> period	2		Class	CIN St Mandrier
LOG12	Presentation of <i>SIGLE</i> (logistics information and management system)	1		Class	CIN St Mandrier
LOG13	Test	1	1	Class	CIN St Mandrier
TOTAL		17	1		

Code	Title	UI	coeff.	Group	Room
DIESEL – GAS TURBINE					
General matters					
MOT2	From provisional cycle to real cycle	3		Class	CIN St Mandrier
Motor technology					
MOT3	Combustion chamber components (lining, segmentation, piston, cylinder head, valve) and power transmission (piston rod, piston axle, crankshaft, stand)	2		Class	CIN St Mandrier
MOT4	Refrigeration techniques – refrigeration damage	2		Class	CIN St Mandrier
MOT5	Lubrication system description (Moati, Relumix); lubrication damage	2		Class	CIN St Mandrier
MOT6	Various launching systems; launching damage	2		Class	CIN St Mandrier
MOT7	Vibrations shocks absorbers	1		Class	CIN St Mandrier
MOT8	Connecting	1		Class	CIN St Mandrier
MOT9	Reversing gear	1		Class	CIN St Mandrier
Combustion – Injection					
MOT10	Fuel supply, circuit	1		Class	CIN St Mandrier
MOT11	Combustion: combustion diagram; influence of use conditions	2		Class	CIN St Mandrier
MOT12	Injection : timing degrees; consequence of a timing variation. Timing, load and speed. Injection architecture and combustion chambers	3		Class	CIN St Mandrier
Power use - Supercharging					
MOT13	Output, consumption and power: specific output and consumption; power and couple; PME and PMI; control of power and couple on board.	2		Class	CIN St Mandrier
MOT14	Supercharging; high supercharging; pumping	2		Class	CIN St Mandrier
MOT15	Evolution of exhaust temperatures	2		Class	CIN St Mandrier
MOT16	Characteristic curbs and exploiting; control: use limits; cases of damaged functioning; contribution of adjustable-bladed and reversible pitch propeller.	4		Class	CIN St Mandrier
MOT17	Reduction gear – shaft line: description, lubrication, securities	2		Class	CIN St Mandrier

Security, steering, testing					
MOT18	Control and security components, overspeed	2		Class	CIN St Mandrier
MOT19	Casing blowing, emanation of smoke	1		Class	CIN St Mandrier
MOT20	Deglazing, grinding, role of the grinding, in force regulations, official tests	2		Class	CIN St Mandrier
Gas turbine					
MOT21	Reduction gear – shaft line: description, lubrication, securities	1		Class	CIN St Mandrier
MOT22	Thermodynamic study: theoretical cycle	1		Class	CIN St Mandrier
MOT23	Components: superchargers and pumping; combustion chamber; turbines.	4		Class	CIN St Mandrier
MOT24	Steering: starting, regulation, circuits	3		Class	CIN St Mandrier
MOT25	Maintenance	1		Class	CIN St Mandrier
MOT26D	Motor and gas turbine control	2	2	Class	CIN St Mandrier
TOTAL		49	2		

Code	Title	UI	coeff.	Group	Room
Production of water					
EAU1	Fresh water on board	2		Class	CIN St Mandrier
EAU2	Electric heating tubes with recovery systems	1		Class	CIN St Mandrier
EAU3	Apparatus producing fresh water thanks to the reverse osmose principle - Functioning	1		Class	CIN St Mandrier
Hydraulics					
HYD1	Hydraulic energy	1		Class	CIN St Mandrier
HYD2	Use of components	2		Class	CIN St Mandrier
HYD3	Pollution and filtering	2		Class	CIN St Mandrier
Fuel and lubricants					
LUB1	Fuel: Fuel oil, diesel oil, TR5, petrol, fuel supply	3		Class	CIN St Mandrier
LUB2	Lubricants (MC30, TVEP, TH): monitoring while in use, exploiting of analysis advices	2		Class	CIN St Mandrier
AUX1D	"Hull auxiliaries/COMBLUB" control	1	1	Class	CIN St Mandrier
Total		15	1		

Code	Title	UI	coeff.	Title	Room
Regulation					
COC501	Automatic control – Proportional Integral Derivated (PID) control	3		Class	CIN St Mandrier
COC502	Speed control for diesel engines and statism	3		Class	CIN St Mandrier
COC503	Application exercises on statism	1		Class	CIN St Mandrier
Automated systems					
COC506	Digital communication	2		Class	CIN St Mandrier
COC507	Presentation of a system with automated steering	1		Class	CIN St Mandrier
COC508D	"COMCO" test	1	1	Class	CIN St Mandrier
TOTAL		11	1		

Code	Title	UI	coeff.	Group	Room
ELECTRICITY PRODUCTION AND DISTRIBUTION					
ELE1	Production and distribution of electricity aboard	2		Class	CIN St Mandrier
ELE2	Dangers of electricity, regulation, personnel accreditation	3		Class	CIN St Mandrier
ELE3	Neutral conductor	1		Class	CIN St Mandrier
ELE4	Insulation measures	1		Class	CIN St Mandrier
NAVIGATION EQUIPMENT					
NAVELEC 1	Electromagnetic logs	1		Class	CIN St Mandrier
NAVELEC 2	Magnetic and gyroscopic compasses	1		Class	CIN St Mandrier
NAVELEC 3	Head and vertical navigation apparatus. Dead reckoning (inspectronic) and electronic navigation means	1		Class	CIN St Mandrier
NAVELEC 4	Inertial measurement units: microcin, minicin, sni	2		Class	CIN St Mandrier
NAVELEC 5	Winds apparatuses and automatic pilots	1		Class	CIN St Mandrier
NAVELEC 6	Equipment presentation	1		Class	CIN St Mandrier
NAVELEC 7	Stabilization	1		Class	CIN St Mandrier
NAVELEC 8	Immunization	1		Class	CIN St Mandrier
NAVELEC 9D	Test	1	1	Class	CIN St Mandrier
TOTAL		17	1		

Code	Title	UI	Coeff	Group	Room
STEAM					
VAP1	General remarks on steam propulsion	1		Class	CIN St Mandrier
VAP2	Boilers and steam manifolds	2		Class	CIN St Mandrier
VAP3	Combustion; air system and fuel; combustion control chain	1		Class	CIN St Mandrier
VAP4	Water supply: extraction turbo-pump (<i>TPE</i>), food filter, level control/ steam and air ejectors/deaerating heater, <i>TPE</i> , food heater, <i>TPA</i>	1		Class	CIN St Mandrier
VAP5	Turbines	1		Class	CIN St Mandrier
VAP6	Power adjustment	1		Class	CIN St Mandrier
VAP7	Condensation: condenser, refrigeration system - <i>TPC</i> / air extraction, watertight boxes	2		Class	CIN St Mandrier
VAP8	Reduction gear – shaft line: description, lubrication, securities	1		Class	CIN St Mandrier
VAP9	Auxiliary turbos	2		Class	CIN St Mandrier
VAP10	Steam risk	1		Class	CIN St Mandrier
VAP11D	Test	1	1	Class	CIN St Mandrier
TOTAL		14	1		

Title II: HUMAN AND MILITARY TRAINING

PRACTICAL TRAINING TO LEADERSHIP

1. OBJECTIVES

Ensigns (*enseignes de vaisseau de 2^{ème} classe*) are an example for the cadets, in terms of military behaviour. They take part as often as possible in the supervision of cadets, especially for the muscular awakening sessions in the morning.

They develop their thought on command and action at the head of a group, thanks to interviews with the officer responsible for their courses and also with the other officers of the academy.

A leadership practical exercise in a maritime environment puts an end to the training which began with the previous leadership exercises (Piranha at semester 2 and Barracuda at semester 4).

2. INITIAL PROGRAMME

2.1. Supervision missions and interview sessions with the officer in charge of courses

On order and personal initiative.

2.2. ESPADON exercise

This final exercise stretches over a period of 28 UI in working hours and 40 in non-working hours in Brest harbour and the coastal edge of the harbour. Higher training.

- *Observations*: this activity is organised under the form of an exercise occurring in the coastal edge, starting from the sea. It deals with amphibious themes. Ensigns are shared out in groups and crews on small crafts. Each of them takes the command of the group in turn. An officer plays the part of the controller in each group or crew. Each group or crew is integrated into a general plan which is coordinated by an exercise directing group, reinforced by exempt ensigns. External help are required under the form of maritime means, plastrons as well as road and air means of transport.
- Detailed objectives:
 - Implementation of a directive leadership and a delegating leadership;
 - To take into account meteorological, maritime and manoeuvring constraints;
 - To merge leadership skills and maritime skills;
 - To master maritime and land aspects of a mission;
 - To lead a liaison and implementation unit (exempt);
 - To work with other groups (with people out of the École navale, take into account constraints of the others and adapt to them, to know oneself so as to better work together in the fulfilment of the mission).

MILITARY TRAINING

1. OBJECTIVES

The military training of this semester is based on:

- shooting with infantry weapons whose aptitude certificates have been obtained during S1;
- the last infantry march of the schooling;
- training in the prospect of the 14th July parade.

2. INITIAL PROGRAMME

CODE: PRODEF	Course	Concerned teachers	UI	Group
/	Training for the 14 th July parade	DIREV	27 HO 10 HNO	Year
7P	Infantry march theme 9	Inst FUS	5 HNO	Year
P	FAMAS ⁶ shooting	Inst FUS	3 HNO	Squad
P	PSA ⁷ shooting	Inst FUS	3 HNO	
P	FAP ⁸ shooting	Inst FUS	3 HNO	
P	AANF1 ⁹ shooting	Inst FUS	3 HNO	
TOTAL			27 HO 27 HNO	

⁶ Assault rifle (5.56 mm)

⁷ Semiautomatic pistol (9 mm)

⁸ Pump rifle

⁹ NATO automatic weapon (F1 model)

INTERNATIONAL RELATIONS AND GEOPOLITICS

1. GENERAL MATTERS

The module dedicated to international relations and geopolitics was initiated at Semester 5 and comes to an end during this semester.

During semester 6, this module, made of 23 teaching units, enables to finalize this kind of teaching. It gathers courses and tutorials that have not been carried out before.

Concerning this module, assessment is performed during this semester and is about all the subjects that were developed at semesters 5 and 6.

2. GENERAL COURSES AND CONFERENCES

2.1. Objectives

- To present the programme for semesters 5 and 6 as well as the different subjects that are linked with this module (maritime geography, international sea law, economy).
- To provide basic knowledge in the field of international relations and geopolitics.
- To organize meetings between cadets from the academy and external high-level specialists.
- To root and strengthen learning issuing from projects on global and regional matters.

2.2. Detailed programme

Conferences and tutorials themes change each year according to current developments.

Code: GEOP	Type	UI	Subject	Speaker
1C	Course	2	General introduction to international relations and geopolitics	External speaker
2C	Course	2	American superpower and evolution of Atlantic relations	
3C	Course	2	The new composition of Europe	
4C	Course	1	Terrorist threats in the world since September, 11th - to set up a map of main terrorist focuses in the world	SPS ¹⁰ teacher
6C	Course	1	Massive destroying weapons: proliferation, spreading, etc.... - to define the possibility of new weapons; - to think about the relevance of a military use of nuclear power in a multi-polar world.	
8C	Course	1	Crisis of the State in Africa - to make a fundamental distinction between state and ethnic group - to learn key figures concerning commercial and maritime aspects of these conflicts	
10C	Course	1	Russia geostrategy (I) - to find out stakes of oil and gas - to distinguish relations between EU, Russia and countries along the Black Sea	
12C	Course	1	Russia geostrategy (2)	
14C	Course	1	Pacific Asia between China and Japan - to study a space with a high economic growth but shared between two regional naval powers	

¹⁰ Social and political sciences

16C	Course	1	Southeast Asia between economic growth and political gradual decline - to understand main factors that make a foreign region become similar to Western countries	
18C	Course	1	Central America and South America, essential crossroads for trade globalization - to remind and define special links between France and Caribbean region as well as Central America - to define main trade exchanges in the region (legal and illegal)	
20C	Course	1	Arabian-Israeli conflicts and their consequences in the Near East - to remind and define main influence areas of large monotheist religions - o make a distinction between the different hypotheses concerning the region reshaping	
24C	Conference	2	Conferences themes are set each year according to current developments, publications and available speakers	External speakers (including a teacher from Strategic studies at BRNC)
25C	Conference	2		
26C	Conference	2		
27D	Test	2	Assessment*	SPS teacher
28C		1	Test marking	
TOTAL		24		

*assessment is carried out at semester 6 and deals with the whole module (shared out on semesters 5 and 6).

NB. 1: As far as possible, the course on a given theme and the tutorial which develops this theme are at least seven days apart.

NB. 2: The programme indicated above gathers all courses of the module for semesters 5 and 6. Only courses which have not been developed at S5 will be approached.

3. TUTORIALS

3.1. Objectives

- To grasp the current international context from different points of view (juridical, historical, economic, demographic, religious and geopolitical).
- To place the important international stakes of the current world.
- To understand and analyse balance of power on the international scene.
- To put forward one's opinion and discuss a topic linked with international relations.
- To be able to develop an elaborate thought on international strategic matters.

3.2. Detailed programme

Tutorial sessions take place by groups of 13 cadets (organization by watch). Those and conferences are at least seven days apart.

Tutorial team: SPS teachers, economy teacher and teachers from the Human and Military Training Department.

CODE GEOP	Type	UI	Subject
5P	T.D	2	American superpower and evolution of Atlantic relations
7P	TD	2	The new composition of Europe
9P	T.D	2	Terrorist threats in the world since September, 11 th
11P	T.D	2	Massive destroying weapons: proliferation, spreading, etc....
13P	Course+TD	2	Crisis of the State in Africa
15P	Course+TD	2	Russia geostrategy
17P	Course+TD	2	
19P	T.D	2	Pacific Asia between China and Japan
21P	T.D	2	Southeast Asia between economic growth and political gradual decline
22P	T.D	2	Central America and South America, essential crossroads for trade globalization
23P	T.D	2	Arabian-Israeli conflicts and their consequences in the Near East
TOTAL		22	

NB.: The programme indicated above concerns all tutorials of the module for semesters 5 and 6. Tutorials that are carried out during this semester depend on subjects that were dealt with before.

PHYSICAL TRAINING

This semester is characterized by a **reinforced physical education** by group, mostly dedicated to sport and physical activities that have a military aspect. It is also based on a physical training by sport option.

Training title		Human and military training unit course
Landmark	Peda. obj. N°	Pedagogical objectives (to be able, at the end of the training, to ...)

SPORT

A	1	To develop physical capacities and especially endurance.
	2	To develop motor skills that are specific to sport and physical activities
	3	To acquire a significant level in a sport activity by means of the sport option training
	4	To take part in the <i>T.S.G.E.D</i>

1. TEACHING BY SQUAD

This training is made up of 22 UI and consists in the following activities:

- Physical activities in the nature (18 UI) ;
- Pass'sport tests (4 UI).

2. TEACHING BY SPORT OPTION

This training is based on 18 UI in working hours and 24 UI in non-working hours.

3. ADMIRAL CROSS-COUNTRY RUNNING

Two admiral cross-country running on the site of the academy are organised during this semester (4UI in total).

EXPRESSION AND COMMUNICATION TECHNIQUES

MEDIA AND COMMUNICATION WITH THE PRESS

1. GENERAL MATTERS

The last module dedicated to expression and communication techniques, which was initiated at semester 5 (8 UI), comes to an end at semester 6(7UI) and closes the teaching which is provided at the École navale in this field.

It concerns cadets who did not take part in the training period dedicated to the discovery of the civilian maritime world.

The training objectives for the semester are as follows:

- to know the organisation of communication within the French Navy;
- to approach relations with press organizations;
- to be able to write a basic article as well as a press pack;
- to become initiated to the interview techniques.

2. PEDAGOGICAL PLAN

As far as possible, the expression/communication programme is planned at the same time for cadets who work on their report following their training period within the civilian maritime world and for those who did not perform it.

3. DETAILED PLANNING

COMM Code	Course	Teachers	Duration
4P	Debriefing on the 1 st filmed interview	Team work with 2 teachers from the expression and communication department and people from the Communication office of the Academy	1
5P	Presentation of practical cases suggested for the 2 nd filmed interview. Work on the preparation of a press pack.	Team work/3 teachers	2
6P	2 nd filmed interview		2
7P	Debriefing on the 2 nd filmed interview and marking of the press pack		2
	TOTAL		7

Assessment deals with results during these practical exercises.

TRAINING PERIOD: DISCOVERY OF THE CIVILIAN MARITIME WORLD

1. GENERAL MATTERS

This module only concerns cadets who carried out a training period to discover the civilian maritime world.

After this training period, performed during the 5th semester, cadets must work together so as to publish the articles they wrote on current maritime topics.

This module replaces the one dedicated to expression and communication techniques which was planned for cadets who did not carry out the working placement at semester 5.

2. INITIAL PROGRAMME

Code: DMMC	Activities	Speakers	UI
DMMC 4	Team work for the marking and structuring of articles, the writing of common parts (editorial, chronology, bibliography, index) in the prospect of publication	1 teacher from the Expression and communication department and heads of juries	1
DMMC 5			2
DMMC 6			2
DMMC 7			2
		TOTAL	7

3. ASSESSMENT

Articles have already been assessed during the oral presentation of their training period report which is normally organised during semester 5.

SEA LAW

1. OBJECTIVES

The teaching of international sea law enables cadets to:

- discover the juridical status of the different maritime spaces and transit modes of warships in these spaces;
- know the scope of control powers that are at the disposal of ships and aircrafts of the State;
- know the immunity scheme from which warships benefit in international waters;
- become familiar with the practical guide of maritime law which aims at commanders' use;
- get used to the application of juridical reasoning in the framework of operational situations.

This teaching completes the knowledge that was acquired in the maritime geography course.

2. INITIAL PROGRAMME

Code: DM	Course	Concerned teachers	UI	Group
1C	General introduction	Teacher from the University of Brest	2	Class
2C	Juridical status applied to large spaces		2	Class
3C	Control powers towards the different sea users		2	Class
4C	Juridical status of warship and its immunities during calls	Officer from the EOCM ¹¹	2	Squad
5C	Presentation of the practical guide of maritime law aimed at commanders' use and practical cases processing		2	Squad
6D	Practical cases processing		2	Squad
7C	Written test* ,in common with the maritime geography course	Officer from the EOCM	2	
TOTAL			14	

* Learning assessment for this module also deals with the module dedicated to maritime geography and attended at semester 5.

¹¹ EOCM = Naval supply officers school

MEN COMMAND AND PERSONNEL MANAGEMENT

WITHIN THE NAVY (2ND PART)

1. OBJECTIVES

- To prepare cadets to future functions as captain of company, section head or department head during their first posting periods;
- To improve the knowledge of statutory rules that govern the military personnel of the navy;
- To approach the different steps of a military carrier and management actions that punctuate its course;
- To know the organisation of human resources within the navy;
- To be aware of the different aspects of human resources management: consulting, juridical liability of the military personnel, income, social action, fight against drugs and alcohol;
- To know and be able to use the guide of the captain of company.

2. DETAILED PROGRAMME

Code: RHM	Type	UI	Subject	SPEAKER
1C	Course	1	Human resources: definition, perimeter, organisation of human resources within the Navy	Officer from the EOCM or DFHM ¹²
2C	Course	2	Statutory approach: the military status, its aims, its features and effect on the human resources system of the navy	Officer from the EOCM or DFHM
3C	Course	2	Main actions of personnel management	Head of the personnel office of CECLANT ¹³
4P	TD	2	The role of the captain of company : guide presentation	Lieutenant by squad
5C	Course	2	The juridical approach: the liability system applicable to military personnel. The right of resort.	Officer from the EOCM or DFHM
6P	TD	1	Disciplinary power implementation	Lieutenant By squad
7C	Course	1	Presentation of general data related to the pay and retirement scheme of military personnel	Officer from the EOCM or DFJ ¹⁴
8C	Course	1	Consultation authorities and the role of people representing the different categories of personnel	Officer from the EOCM or master chief petty officer in charge of non-officer personnel
9C	Course	1	Consciousness-raising course on the status and management of the civilian personnel of the defence	Officer from the EOCM or head of the ADM/PC

¹² DFHM = Department for human and military training

¹³ CECLANT = Commander in chief of the Atlantic area

¹⁴ DFJ = Financial and juridical department

				office of CECLANT
10C	Course	1	Social assistance for servicemen and their families	Person responsible for ASA ¹⁵ BREST
11C	Course	2	Basic notions of industrial hygiene and safety	Factory inspector
12C	Course	2	Module on drugs and alcohol (1 st part)	Health service
13C	Course	2	Module on drugs and alcohol (2 nd part)	Gendarmerie/Ju stice
14C	Course	1	Statement of a naval unit commander on human resources matters	Officers from the forces
15P	TP	3	Written assessment or marked practical based on solutions to human resources cases	JURY appointed by the DFHM
16C	Course	2	Debriefing on practical cases or written test marking	JURY appointed by the DFHM
TOTAL		26		

Courses are given by class. They can be organised twice if a programming by watch is necessary

The first and second part of the module have the learning assessment in common. It is carried out at semester 6.

¹⁵ ASA = Social action of the Armies

LANGUAGE PRACTICE: ENGLISH OR SECOND MODERN LANGUAGE

1. OBJECTIVES

- To gain autonomy and ease as well as make progress in the practice of the language;
- To acquire the CML2 for those who still don't have it (imperative);
- For cadets who have already obtained the English CML2, the objective is to improve their skills as far as a second modern language is concerned.

2. INITIAL PROGRAMME

18 UI are dedicated to the teaching of modern languages, whatever the language. It represents about 2 UI/week.

2.1. English

The main fields of English sessions are the following ones:

- written expression;
- oral expression/presentations in front of the class;
- written and oral comprehension;
- phonology;
- grammar.

2.2. Second modern language

Cadets who already have the English CML2 can choose to go on learning a second modern language among which:

- German for non beginners;
- Spanish for non beginners;
- Russian for non beginners.

At the beginning of the semester, a test checks the level of the cadets who registered at the courses of German, Spanish and Russian.

3. ASSESSMENT

3.1. English

Its goal is to evaluate the mastery level of the language compared with a given standard. To that purpose, a test, related to 3 skills (oral comprehension, written comprehension, written expression) is set up during the semester. It is common to all the cadets.

3.2. Second modern language

Each group has a specific assessment. Five fields are assessed under the following conditions:

Mark A	Mark B	Mark C	Mark E	Mark D
Oral comprehension	Written comprehension	Written expression	Grammatical and lexical knowledge	Oral expression
Each of these marks will be based on at least two tests in class. Between 3 and 4 hours will be dedicated to this assessment.				This skill will be assessed through an individual oral presentation in front of the class.

The final form of the assessment is composed of the average mark issuing from these 5 marks as well as a written comment on the level reached by each cadet.